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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,230

09/09/2004

Rajen M. Patel

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The Dow Chemical Company
Intellectual Property Section
P.O. Box 1967
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EXAMINER

PIERY, MICHAEL T

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

03/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/507,230	Applicant(s) PATEL ET AL.	
	Examiner MICHAEL T. PIERY	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 1-32 and 36-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/11/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Lack of Unity Election

1. The following election requirement is made in accordance with 37 CFR 1.499

I. Claims 1-7, reversible heat set elastic fiber

II. Claims 8-11, blend of fibers

III. Claims 14-24 and 32, yarn

IV. Claims 25-32, composite fiber

V. Claims 33-35, a method of making a yarn

VI. Claims 36, a method of making a fiber

VII. Claims 37-40, a Fabric (class 442)

VIII. Claims 41-42, a Method Dyeing a fiber (class 8 or 427)

IX. Claims 43-46, a method of Weaving a fabric

X. Claims 47-50, a method of Knitting a fabric

XI. Claims 51-52, a method of making a nonwoven Fabric (class 156)

The special technical feature (STF) of group I is a reversible heat set fiber. The forgoing STF is show in US 3,315,328 and US 3,487,628 for example. Thus, there can be no Unity of invention when the STF is show in the prior art. Hence Lack of unity is held By the Examiner under PCT rule 13 and 37 CFR 1.475

During a telephone conversation with James Hoppe on September 7, 2005 a provisional election was made without traverse to prosecute the invention of V, claims 33-35. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-32, and 36-

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52 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 33 claims an inelastic fiber, but it is unclear in the method steps where the inelastic fiber is incorporated.

Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The

claim does not recite any method step in the production of a warp beam.

Deleted: ¶

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usdan (US Re. 29,572) in view of Price (US Re. 28,117).

Regarding claim 33, Usdan teaches a method of making a reversed, heat-set yarn, the yarn comprising: A. An elastic fiber comprising a temperature-stable polymer having a melting point; and the method comprising: (b) Converting the stretched elastic fiber of (a) into a yarn (Column 2, lines 40-44); (c) Winding the yarn of (b) onto a package (Column 3 line 18); (d) Heating the yarn of (c) to a temperature in excess of a temperature at which at least a portion of

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the crystallites are molten (Column 3, lines 20-22); and (e) Cooling the yarn of (d) to a temperature below the temperature of step (d) (Column 3, lines 25-27). The melting point of polyester is 249°C, so at 250 °C (Column 3, lines 20-30), at least a portion of the crystals are molten.

Regarding claim 33, Usdan does not explicitly teach the yarn comprises an inelastic fiber. However, Price does teach that the yarn comprises an inelastic fiber (Column 1, lines 70-71). Polyester is an elastic material, while nylon is an inelastic component of the yarn.

Regarding claim 34, Usdan teaches the method of claim 33 comprising the additional step (g) heating the temperature of the yarn above a temperature at which at least a portion of the crystallites are molten (Column 3, lines 29-32) such that the length of the yarn obtained in step (g) is less than the length of the yarn obtained in step (f) (contraction occurs when the yarn is heated, therefore the length in g is less than that of f).

Regarding claim 33, Usdan does not explicitly teach stretching the fiber. However, Price does teach stretching the fiber (Column 2, lines 6-10).

Regarding claim 34, Usdan does not explicitly teach removing the stretching force from the fiber before the heating step. However, Price does teach removing the stretching force from the fiber (Column 2, lines 8-9). The fiber is unwound from the package, therefore releasing the stretching force.

Usdan and Price are analogous art because they are from the same field of endeavor, production of heat-set yarn. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the process of Usdan with the steps of Price because stretching the yarn creates an acceptable tenacity.

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5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usdan in view of Price as applied to claims 33 and 34 above, further in view of Kahlisch (US 2,037,513).

The teachings of Usdan and Price are applied as described above for claims 33 and 34.

The modified disclosure of Usdan does not explicitly disclose a method of making warp beams incorporating yarn.

However, Kahlisch teaches a method of making warp beams the method comprising incorporating yarn (Column 1, lines 3-18). Kahlisch, Usdan, and Price are analogous art because they are from the same field of endeavor, methods incorporating yarn.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the process of Usdan in view of Price with the warp beam of Kahlisch because warp beams are commonly used to wind finished yarn products.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. PIERY whose telephone number is (571)270-5047. The examiner can normally be reached on M-Th 7:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTP

/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791